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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : ERICH LUGSCHEIDER Docket No.: 01-329
Serial No.: 09/856,335 Examiner :
Filed : May 18, 2001 Art Unit :
For : MATERIAL FOR PRODUCING A CORROSION-
AND WEAR-RESISTANT LAYER BY THERMAL SPRAYING

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INFORMATION DISCLOSURE STATEMENT

Hon. Commissioner of Patents and Trademarks
United States Patent & Trademark Office
Washington, D.C. 20231

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Dear Sir:

In accordance with the requirements of 37 C.F.R. 1.97 and 1.98, Applicant hereby submits the prior art documents listed hereinbelow, copies enclosed, which prior art was cited in the corresponding International Search Report.

- (1) U.S. Patent No. 4,393,677 for PLUGS FOR USE IN PIERCING AND ELONGATING MILLS, By Manabu Tamura et al., Patented July 19, 1983. This reference discloses a plug for use in a piercing and elongating mill characterized in that an adherent durable surface layer consisting essentially of iron oxides, i.e., FeO, Fe₃O₄, Fe₂O₃ or mixtures thereof is

formed on the surface of the plug by spraying said molten iron oxide powder onto the plug surface to form said layer.

- (2) U.S. Patent No. 5,143,746 for PROCESS FOR PRODUCING MAGNETITE-COATED ELECTRODE, By Hideo Inoue et al., Patented September 1, 1992. This reference discloses a process for producing a magnetite-coated electrode which comprises kneading an iron oxide powder, water and an organic binder under pressure sufficient to prepare a molded article, baking the molded article in a gas atmosphere mainly composed of a member selected from the group consisting of carbon dioxide and steam to prepare a magnetite sinter having an Fe to O ratio of 3:3.7 to 4.0, pulverizing the sinter to prepare a powder, and subjecting a metallic substrate to plasma spray coating, plasma jet spray coating, explosive spray coating and water plasma spray coating by making use of the powder as the spray coating source in a neutral gas atmosphere to form a magnetite coating on the surface of the metallic substrate.

- (3) U.S. Patent 3,922,444 for SLIDING MEMBER, By Yoshikatsu Nakamura, Patented November 25, 1975. This reference discloses a sliding member having a sliding surface layer produced by spraying on a surface of a base body a mixture

composed of one or more metallic compounds selected from a group consisting of metal oxide, metal carbide and self-fluxing metal and Fe_3O_4 , dispersed in said metallic compounds in amount of more than 5% of the latter.

- (4) U.S. Patent No. 3,900,200 for SCUFF RESISTANT SLIDING MEMBER, By Yoshikatsu Nakamura, Patented August 19, 1975. This reference discloses a sliding member, such as a piston ring or cylinder liner, having a scuffing and abrasion resistant surface layer produced by spraying Fe_3O_4 on the surface of the base body for the sliding member.
- (5) U.S. Patent No. 2,707,691 for COATING METALS AND OTHER MATERIALS WITH OXIDE AND ARTICLES MADE THEREBY, By W.M. Wheildon, Jr., Patented May 3, 1955. This reference relates to the coating of metals and other materials, such as graphite, with oxide.
- (6) U.S. Patent No. 5,912,471 for APPARATUS AND METHOD FOR MONITORING THE COATING PROCESS OF A THERMAL COATING APPARATUS, By Matthias Schutz, Patented June 15, 1999. This reference discloses whether it is possible to give a forecast relating to the quality of a coating layer applied to a substrate by a thermal coating apparatus, an apparatus

is provided, comprising a plurality of sensors and/or comprises optical means, in order to separately monitor the radiation emitted by the heated particles entrained by the coating jet in particular areas along a section of the coating jet extending crosswise to the direction of the coating jet.

- (7) U.S. Patent No. 5,180,921 for METHOD AND APPARATUS FOR MONITORING THE TEMPERATURE AND VELOCITY OF PLASMA SPRAYED PARTICLES, By Christian Moreau et al., Patented January 19, 1993. This reference discloses a method and an apparatus for monitoring simultaneously the temperature and the velocity of sprayed particles.
- (8) U.S. Patent No. 5,047,612 for APPARATUS AND METHOD FOR CONTROLLING POWDER DEPOSITION IN A PLASMA SPRAY PROCESS, By Sudhir D. Savkar et al., Patented September 10, 1991. This reference discloses an apparatus and method for controlling the powder deposition and deposit pattern in a plasma spray process in which an infrared imaging detector and associated processors are employed to provide an image of the temperature distribution of the deposit and to provide an identification of the impact point of the most recent powder deposit, and in which a cyclone separator or other

device is used to modulate the flow rate of the carrier gas in which the powder is entrained at the point where the powder and gas are injected into a plasma plume, in order to move the impact point of the powder from the sensed location to a desired location.


The undersigned submits the above-identified references for independent consideration by the Examiner and does not make any admission that these references are or are not material to the present invention or that these references are or are not prior art with respect to the present invention.

If any charges are required in connection with this submission, it is requested that they be charged to Deposit Account No. 02-0184.

Respectfully submitted,

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mailed with the United States Postal Service as first class mail to arrive at the United States Patent and Trademark Office, Washington, D.C. 20231

on July 30, 2001

(date of deposit)

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Signature

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Date of Signature

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